

-continued

A. Phase I			Doctor's Progress Notes
Day	Indication of Tumor Status/Response		
13	No pain at any level; no signs of hypercalcemia.		ing very tired after radiation treatment sleeps most of the afternoon; irritable. Patient requests discontinuance of daily radiation treatments; as she feels much better before treatment and very bad after it; continues to improve generally.

The oncologist noted the following: Throughout the treatment period the patient's body weight, blood pressure, pulse rate, respiratory rate, temperature, and blood cytological and chemical parameters remained stable and within the normal range, except for the increasing initial hypercalcemia she had at time of entry. The DNP produced the intended transient increase in metabolic rate; no side-effects attributable to DNP per se were observed. The patient was continued on daily radiation treatments by the oncologist for another week after her request that they be stopped. Just prior to the last radiation treatment (day 19) the patient slipped in the bathroom at night and suffered an orbital hematoma, with apparent additional internal bleeding of undetermined origin, and eventually became comatose therefrom (day 24). However, she responded rapidly to an infusion of whole blood and improved somewhat, but remained in a state of general malaise and unsteadiness. The hypercalcemic state elevated rapidly during this period, when she was only minimally on the Dnr. She was released (day 27) at the request of her family and did not participate in the Phase II treatment period.

Table VIII summarizes the daily treatment conditions for this patient:

TABLE VIII

Case No. 8: Daily Treatment Conditions						
A. Phase I						
Day (No.)	DNP (mg/kg)	Pr (g)	Efa (ml)	Cho (g)	Bmr (IO <sub>2</sub> /d)	Emr <sub>A</sub> (IO <sub>2</sub> /d)
1	0	11.8	2.9	407	not measured	323
2	0	11.8	2.9	407	329	323
3	0	11.8	2.9	407	293	323
4	1.5	11.8	2.9	446	308	352
5	2.0	11.8	2.9	457	344	360
6	1.0	11.8	2.9	510	not measured	400
7	1.0	19.6	2.9	480	349	450
8	0	19.6	2.9	512	336	411
9	1.5	12.0	2.9	409	414	360
10	0	3.7	2.9	409	not measured	439
11	0	6.7	2.9	409	255	411
12	0	23.2	2.9	521	not measured	420

While the invention has been described in connection with specific embodiments thereof, it will be understood that it is capable of further modification and that this application is intended to cover any variations, uses, or adaptations of the invention following, in general, the principles of the invention and including such de-

partures from the present disclosure as come within the ordinary skill of the art to which the invention pertains, and as may be applied to the essential features hereinbefore set forth, within the spirit of the invention and the scope of the appended claims.

What is claimed is:

1. A method for effecting oncolysis in a mammal with a malignant condition characterized by an in vivo metabolism in the cells wherein said cells are substantially unable to utilize glucose for the production of adenosine triphosphate (ATP), which method comprises elevating said mammal's basal metabolic rate as far as therapeutically tolerable by administering a combination of

(a) a predetermined periodic dosage of physiologically tolerable agent capable of uncoupling oxidative phosphorylation in said mammal, and

(b) a daily nutritional regimen selected with reference to the basal and active metabolic rates of said mammal so as to provide only a minimum daily caloric requirement for said mammal, which is allocated among,

(i) an amount of amino acids just sufficient to maintain minimal bodily nitrogen balance,

(ii) a minimum amount of essential fatty acids, and

(iii) the balance in the form of glucose or physiological precursors thereof.

2. The method of claim 1 in which said periodic dosage of said agent and said daily nutritional metabolite regimen are reevaluated and adjusted in accordance with measured changes in said mammal's basal and active metabolic rates.

3. The method of claim 1 wherein the uncoupling agent is selected from among 2,4-dinitrophenol, 2,6-dinitrophenol, 4,6-dinitrocresol and mixtures of any of them.

4. A method according to any of claims 1, 2 or 3 wherein either or both of the minimum daily caloric requirement and the uncoupling agent may be administered orally or parenterally.

5. A method according to claim 4 wherein the minimum daily caloric requirement, expressed as kilocalories per day, is measured at about one-half the sum of said mammal's basal and active metabolic rates, each expressed in kilocalories per day.

6. A method according to claim 4 wherein said amount of amino acids provides daily nitrogen intake for said mammal substantially equal to the minimum total daily nitrogen excreted in urine by said mammal and said minimum amount of fatty acids corresponds to about 1% of said minimum daily caloric requirement at the commencement of administration of the method.

7. A method according to claim 4 wherein said mammal is a human being.

8. A method according to any of claims 1, 2 or 3 wherein the minimum daily caloric requirement, expressed as kilocalories per day is measured at about one-half the sum of said mammal's basal and active metabolic rates, each expressed in kilocalories per day.

9. A method according to claim 8 wherein said amount of amino acids provides daily nitrogen intake for said mammal substantially equal to the minimum total daily nitrogen excreted in urine by said mammal and said minimum amount of fatty acids corresponds to about 1% of said minimum daily caloric requirement at the commencement of administration of the method.

10. A method according to claim 8 wherein said mammal is a human being.